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ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

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ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ  
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## CHANGES OF IMMUNOREGULATORY INDEX AMONG YOUNG CHILDREN SUFFERING FROM ROTAVIRUS INTESTINAL INFECTION

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Rotavirus infection occupies an important place in the structure of infectious diseases and is the main reason of morbidity and mortality in young children. According to WHO experts, almost every child suffers from rotavirus gastroenteritis during the first five years of life, regardless of social and economic status and place of residence. Children under the age from 6 to 24 months suffer from rotavirus infection the most often. According to WHO, the incidence in different countries ranges from 250 to 3,000 per 100,000 children. More than 111 million cases of rotavirus gastroenteritis are diagnosed every year. The course of the disease mostly depends on the immune system of the patient. A special place here belongs to the cell role, namely the immunoregulatory index, which is the ratio of CD4 + to CD8 + T-lymphocytes and is an indicator of body's defense system against infections.

The aim of our study was to determine changes of immunoregulatory index among young children with rotavirus intestinal infection.

Materials and methods: 26 children under the age from 1 month to 5 years have been examined: 14 patients were hospitalized with rotavirus intestinal infection and 12 were healthy children. The results of the research showed a significant decrease of the immunoregulatory index of serum among sick children. CD4 + cells are the major regulators of the immune response. T-helper cells activity influences the immune response and its efficiency. CD8 + cells are affect cells of the immune response which make the final impact on the targets of the immune aggression. An indicator of cell immunity is reduced because of the participation of T-helper cells and T-suppressors in the immune response to virus infection.

Thus, a significant decrease of the immunoregulatory index among sick children proves the immune system activation in response to the entry of a foreign agent. At the same time it is necessary to continue the study of cell immunity to clarify its role and to find out the diagnostic and prognostic markers of rotavirus infection course.